

## **ATTACHMENT B**

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A purified ULIP polypeptide comprising the amino acid sequence of SEQ ID No. 8.
2. (Canceled)
3. (Previously Presented) An isolated nucleic acid comprising a cDNA sequence coding for a ULIP polypeptide of amino acid sequence SEQ ID No. 8.
4. (Previously Presented) The isolated nucleic acid according to Claim 3, comprising the sequence of SEQ ID No. 7.
5. (Canceled)
6. (Previously Presented) A cloning and/or expression vector containing a nucleic acid sequence according to Claim 3.
7. (Previously Presented) An isolated host cell transfected by a vector according to Claim 6.

8. (Canceled)

9. (Currently Amended) A composition useful for the diagnosis of paraneoplastic neurological syndromes in which anti-CV2 antibodies are expressed and for the diagnosis of the formation of tumors associated therewith, said composition comprising a purified polypeptide comprising amino acid sequence SEQ ID No. 8, or a purified fragment thereof, wherein the purified polypeptide or fragment binds to anti-CV2 antibodies.

10. (Previously Presented) A method for detecting the presence of anti-CV2 antibodies in a biological sample, comprising:

- contacting a biological sample with a purified ULIP polypeptide comprising SEQ ID No. 8, or a fragment thereof that binds to anti-CV2 antibodies, or with a polypeptide encoded by a nucleic acid comprising the nucleotide sequence of SEQ ID No. 7; and
- detecting specific immunological complexes optionally formed, the specific immunological complexes being indicative of the presence of anti-CV2 antibodies.

11.-14. (Canceled)

15. (Currently Amended) A kit for detection of anti-CV2 ~~the diagnosis of paraneoplastic neurological syndromes in which anti-CV2 antibodies are expressed,~~

~~said antibodies in a biological sample, and for the diagnosis of the formation of tumors associated therewith,~~ said kit comprising:

- at least one purified ULIP polypeptide comprising SEQ ID No. 8, or a fragment thereof that binds to anti-CV2 antibodies, said polypeptide or fragment optionally attached to a support, and
- means of visualization of the formation of specific antigen/antibody complexes between an anti-POP-66 auto-antibody and the purified ULIP polypeptide or fragment and/or means of quantification of these complexes.

16-19. (Canceled)

20. (Currently Amended) A method of detecting anti-CV2 antibodies~~diagnosing a paraneoplastic syndrome in which anti-CV2 antibodies are expressed in a subject,~~ said method comprising the steps of:

- contacting a sample from the subject with a purified polypeptide comprising SEQ ID No. 8, or a fragment thereof that ~~bind~~binds to anti-CV2 antibodies, said contacting carried out under conditions sufficient to allow the formation of specific immunological complexes between the polypeptide or fragment thereof and anti-CV2 antibodies present within the sample; and
- detecting the specific immunological complexes formed;

wherein the presence of immunological complexes is indicative of the presence of anti-CV2 antibodies~~a paraneoplastic syndrome~~ in said subject.

21. (Previously Presented) The method of claim 20, wherein the polypeptide consists of SEQ ID No. 8.

22. (Currently Amended) The method of claim 20, comprising contacting the sample from the subject with a fragment of the purified polypeptide, said polypeptide consisting of ~~wherein the polypeptide is a fragment of a polypeptide comprising amino acid~~ sequence SEQ ID No. 8, wherein said fragment binds to anti-CV2 antibodies.

23.-29. (Canceled)

30. (Currently Amended) A reagent for ~~ex-vivo~~ identifying anti-CV2 antibodies to a polypeptide in a sample from a subject, said reagent comprising:  
a solid support; and  
a peptide comprising a fragment of the polypeptide of claim 1 wherein the fragment binds to anti-CV2 antibodies, said fragment attached to said support.

31.-32. (Canceled)

33. (Currently Amended) A ~~diagnostic kit~~ for identifying antibodies in a sample from a subject to a polypeptide comprising amino acid sequence of SEQ ID No. 8 ~~in a subject~~, said kit comprising a fragment of said polypeptide that binds to anti-CV2 antibodies.

34. (Previously Presented) The kit of claim 33, wherein the kit further comprises means of visualizing formation of complexes between said fragment and antibodies to the polypeptide comprising amino acid sequence of SEQ ID No. 8.

35. (Previously Presented) The kit of claim 33, wherein the fragment of said polypeptide is purified.

36. (New) A reagent for identifying anti-CV2 antibodies in a sample from a subject, said reagent comprising:

a solid support; and

a polypeptide comprising amino acid sequence SEQ ID NO:8, said polypeptide attached to said support.